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BROWNING-FERRIS INDUSTRIES OF CALIFORNIA, INC.

STATE WATER RESOURCES CONTROL BOARD

BROWNING-FERRIS INDUSTRIES OF
CALIFORNIA, INC.,

Petitioner,

STATEMENT OF POINTS AND
AUTHORITIES IN SUPPORT OF
PETITION FOR REVIEW OF REGIONAL
BOARD'S ISSUANCE OF WDRs

I. INTRODUCTION

Petitioner is Browning-Ferris Industries of California, Inc. (hereinafter, "BFI" or "Petitioner"), which owns and operates the Sunshine Canyon Landfill (the "Landfill") located within both the City and County of Los Angeles, California. BFI is proposing an initial expansion of the Landfill within the City (the "Expansion Project"), as described below, and applied to the Regional Water Quality Control Board – Los Angeles Region (the "Regional Board") for Waste Discharge Requirements ("WDRs"), which were issued on December 4, 2003.

This petition is filed to challenge certain requirements of the WDRs. Specifically, BFI challenges the Regional Board's amendment of the tentative WDRs to require a double composite liner instead of the prescriptive liner required by State regulations. The double liner was added to address unsubstantiated community concerns that the proposed liner might not protect groundwater. Petitioner objects to the Board's decision to require a double liner for the following reasons:

- The staff reviewed the JTD and concluded that the prescriptive liner would protect water quality;
- A prescriptive liner installed at the Landfill in 1993 has performed as designed with no evidence of leachate or condensate indicator parameters at the Points of Compliance;
- The site has excellent natural containment features;
- No credible technical or scientific evidence was presented showing that the prescriptive liner would not protect water quality;
- No evidence was presented that a double liner would provide any quantifiable additional protection to groundwater;
- The Petitioner was not allowed to present evidence as to the additional cost of the double liner and the impact that requiring a double liner on the side slopes would have on stability and the capacity of the landfill; and
- The sole basis for the double liner appears to be an attempt to address community concerns that the State and Federally mandated prescriptive liner might leak.

Petitioner also challenges the addition of a reopener for possible future amendment of the WDRs based on the results of an on-going public health survey. Despite numerous studies over the past 15 years, there is no objective evidence in the record of any landfill-related increase in adverse health impacts in the community and no evidence of a water-based pathway of exposure by which the landfill might be having an adverse impact on the community. As such, the Board lacks jurisdiction to impose additional requirements in the WDRs to address any elevated risk of illness that might be identified in the survey.

II. BACKGROUND

The Sunshine Canyon Landfill, a Class III landfill, accepts only non-hazardous municipal solid waste and has never accepted hazardous waste. A part of Sunshine Canyon lies within the City of Los Angeles, and the other part is within an unincorporated area of the County of Los Angeles. For purposes of regulation, Sunshine Canyon Landfill is classified into two separate Class III municipal solid waste management units referred to respectively as the Sunshine Canyon City Side Landfill ("City Landfill") and the Sunshine Canyon County Extension Landfill ("County Landfill"). The City Landfill¹ is located entirely within

¹ The City Landfill is informally divided into two subparts designated as the "Main City Landfill Area" which began accepting waste in 1958 and the "North City Landfill Area" which began accepting waste in the late

1 the City of Los Angeles, while the County Landfill is located immediately northwest of the
2 City Landfill within the County. The City Landfill, a portion of which began operations as
3 early as 1958, ceased accepting waste in 1991 and is undergoing closure. The County
4 Landfill was approved by the Los Angeles County Board of Supervisors in November 1993.
5 The approval was based on a certified Final Environmental Impact Report (the "1993
6 FEIR"). The County Landfill commenced operations in 1996 and receives an average of
7 6,000 tons of municipal solid waste each day. Each landfill has its own land use permits,
8 WDRs, and Solid Waste Facility Permit ("SWFP"). The WDRs, which are the subject of
9 this appeal, are for an expanded area of the City Landfill as described below.

10 **A. The Permitting Process**

11 On October 27, 1999, the Los Angeles City Council certified a Final
12 Subsequent Environmental Impact Report ("SEIR"), based upon the 1993 FEIR, for a
13 City/County Landfill consisting of 257 acres within the County and 194 acres within the
14 City. Then on December 8, 1999, the City Council passed Ordinance No. 172933, which
15 changed zoning in the City portion of Sunshine Canyon from "agricultural" to "heavy
16 industrial" in order to accommodate the anticipated landfill expansion.

17 BFI has proposed an initial 84-acre phase (the "Expansion Project") of the new
18 194-acre landfill unit (Unit 2) on the City side of the landfill. On or about January 5, 2003,
19 BFI applied to the Regional Board for WDRs for the Expansion Project. The application
20 was submitted in the form of a Joint Technical Document ("JTD") prepared in accordance
21 with Title 27 of the California Code of Regulations ("CCR"). The JTD is a comprehensive
22 document which describes the Expansion Project in detail and reviews all aspects of the
23 proposed landfill expansion including, but not limited to, design specifications, stability
24 analyses, facility operations, permit requirements, environmental control systems, and
25 preliminary closure and post-closure maintenance plans.²

26 1980's. Both areas ceased accepting waste in September 1991, when a 25-year City variance expired.

27 ² The JTD also was submitted to the City Environmental Affairs Department ("EAD") on November 25,
28 2002, as part of an application for a Solid Waste Facility Permit for the Expansion Project. The SWFP was
approved by the California Integrated Waste Management Board on May 13, 2003, and was issued by the

1 On February 5, 2003, Regional Board staff determined that the JTD was
2 complete. Exhibit A, WDRs, ¶9. Based on the JTD and additional information gathered
3 from BFI, Regional Board staff prepared tentative WDRs for the Expansion Project
4 proposing to approve the Expansion Project with the prescriptive liner. Tentative WDRs,
5 dated July 17, 2003, ¶ 12.³

6 **B. Description Of Landfill Liner And Leachate Control System**

7 BFI proposed the installation of a comprehensive liner and leachate collection
8 and removal system that meets and, in some cases, exceeds applicable state and federal
9 requirements. The same liner design was used at the County Landfill and has performed as
10 designed and proven to be protective of groundwater. Monitoring data have shown no
11 evidence of leachate or condensate indicators at the Points of Compliance for the County
12 Landfill or any of the County monitoring points. Regional Board Responses to Comments
13 dated July 18, 2003, Response 4.C.

14 The single-composite liner proposed by BFI consists, from bottom to top, of
15 the following components: (a) a base of bedrock; (b) a two-foot thick layer of compacted
16 clay comprised of material having very low permeability; (c) a 60-mil. layer of synthetic,
17 high-density polyethylene plastic ("HDPE"); (d) a 12-inch thick leachate control system
18 consisting of coarse gravel and a piping system and leachate sump used for the collection
19 and removal of leachate; and (e) an operations layer consisting of clean soil at least two feet
20 thick to protect the liner system, which will serve as a final layer of protection. These
21 components, which fully comply with 27 C.C.R. Section 20330, et seq. and State Water
22 Board Resolution No. 93-062, will serve as an impermeable barrier to prevent leachate from
23 reaching groundwater.

24 A different design was proposed for the side slopes, consisting of the following
25 components, from bottom to top: (a) a prepared subgrade; (b) a geosynthetic clay liner
26

27 City EAD, as the local enforcement agency for the State, on May 21, 2003.

28 ³ The Tentative WDRs and other documents referenced herein are part of the administrative record in this matter.

1 (GCL); (c) a 60-mil. HDPE geomembrane liner; (d) a geonet synthetic drainage media; (e) a
2 10-ounce per square yard filter geotextile layer; and (f) a protective cover soil layer at least
3 two-feet thick to protect the slope liner. There is no dispute that the proposed liner design,
4 both bottom and side slopes, meets the state's prescriptive standard. Tentative WDR Finding
5 ¶ 12 and Requirement D.1.

6 In addition to installing the above-referenced liner and leachate collection and
7 removal system, Petitioner proposed certain upgrades to these environmental controls which
8 exceed Title 27 requirements. A double composite liner was proposed for the leachate-
9 collection sump area located in the lowest part of the landfill liner. The leachate-collection
10 sump will serve to continuously collect and remove leachate and was described by Executive
11 Officer Dennis Dickerson as "the most critical part of the liner system." July 24, 2003
12 Hearing Transcript, p. 20. The double liner for that area is justified by the fact that this is the
13 only location where leachate is allowed to accumulate. The collected leachate will be piped
14 to the leachate treatment system and disposed of in the sanitary sewer.

15 Sunshine Canyon Landfill has been designed in excess of state requirements
16 concerning seismic design. More specifically, state requirements mandate that a Class III
17 landfill be designed to withstand the "Maximum Probable Earthquake," meaning the
18 strongest earthquake that is likely to occur during a 100-year interval. 27 C.C.R. Section
19 20370. Sunshine Canyon Landfill has been designed in accordance with the more stringent
20 "Maximum Credible Earthquake" standard, which represents the strongest earthquake that
21 could impact the landfill regardless of time. Exhibit A, WDR ¶¶ 24 and D.2.

22 Another important environmental control that will serve to further protect
23 groundwater is an extraction trench already in use at the site. Exhibit A, WDR ¶36 and
24 Requirement I. 2. Groundwater leaving Sunshine Canyon is intercepted at the extraction
25 trench, collected and reused for dust control. BFI proposed and the Regional Board
26 approved the construction of a new cut-off wall or walls down gradient of the extraction
27 trench to intercept any groundwater not otherwise collected by the trench. Exhibit A, WDR
28 Requirement I.3.d. Therefore, groundwater in the canyon will not leave the site.

1 Finally, to augment the existing monitoring wells, a new groundwater
2 monitoring system was proposed to enable the early detection of any potential problems.
3 Pursuant to the WDRs, BFI will be required to monitor groundwater conditions at ten
4 monitoring wells located throughout the site and at the extraction trench. Exhibit A, WDR ¶
5 H.10.

6 Extensive environmental controls are also in place to protect surface water. As
7 a result of these controls, surface water will not come into contact with waste. Daily or
8 approved alternative daily cover will be applied each day to areas of the landfill where work
9 is currently taking place. The cover is designed to ensure that stormwater runs off the cover
10 without coming into contact with waste into a series of drainage channels located throughout
11 the facility. From these drainage channels, stormwater will flow to sedimentation basins and
12 thereafter will be routed to the County storm drain system. Exhibit A, WDR Requirement
13 F.1.

14 Accordingly, there will be no discharges to groundwater, and the proposed
15 landfill was designed so that waste will not contact surface water. As described below,
16 Regional Board staff and the expert witnesses who testified all agreed that the design and
17 environmental controls implemented by BFI will ensure the protection of groundwater and
18 surface water.

19 **C. The Hearing Process**

20 The Regional Board held two public workshops and four public hearings on
21 the Tentative WDRs. The two workshops were held on June 18, 2003, and public hearings
22 were held on July 24, September 11, November 6, and December 4, 2003. Testimony was
23 taken from the public at the two workshops and at all hearings except the December 4
24 hearing. The record was closed following the November 6 hearing, and the December 4
25 hearing consisted of responses to Board questions and deliberations.

26 At the June 18 workshops, Board President Susan Cloke, in describing the
27 Board's role in issuing WDRs, stated that:

28 "Obviously, in the case of a landfill, our concern is with the

1 groundwater. We are not a land use agency. We do not have
2 jurisdiction or authority to make siting decisions. We are not a
3 zoning agency.

4 “We do not have authority or jurisdiction to make zoning
5 decisions. We are a water quality agency, and it is our
6 responsibility to make sure that if there is going to be a landfill
7 sited in this location that our groundwater will be protected.”

8 June 18, 2003, Hearing Transcript, p. 5.

9 Having said that, a review of the transcripts shows that the workshops and
10 public hearings turned into an opportunity for the community and certain elected officials to
11 attempt to revisit the land use decision to permit the landfill made by the City of Los
12 Angeles. The public raised, and the Board entertained, comments on all aspects of the
13 decision to expand the landfill, including arguments that the landfill was impacting public
14 health, questions concerning recycling, mitigation of oak and fir trees, the legality of
15 discharges to the sanitary sewer and whether to issue the WDRs prior to pending
16 administrative decisions by the County concerning an expansion at the County Landfill that
17 was the subject of a separate JTD. See Staff Report prepared for the September 11, 2003
18 hearing. The Board members were repeatedly requested by the community and certain local
19 politicians to do everything in their power to deny the permit and block the expansion.

20 At the November 6 hearing, the Board heard testimony from a number of
21 witnesses including Los Angeles City Councilmember Smith, who introduced a study
22 purporting to show that the material used for the synthetic liner, HDPE, could suffer stress
23 fractures when exposed to some common household products. Following the conclusion of
24 the public testimony that day, the Chair announced that the record was closed and that no
25 testimony would be taken at the next hearing. Petitioner was not given an opportunity to
26 rebut the testimony presented at the November 6 hearing but did submit written comments
27 dated November 18, 2003, demonstrating that the study was irrelevant to the proposed liner
28 system.

1 At the December 4, 2003 hearing, the Board announced that letters received
2 after the close of public testimony would not be accepted into the record. December 4, 2003
3 Hearing Transcript, pp. 12-14, 55-56. Petitioner's attorney attempted to address the Board to
4 answer some of the claims that had been made at the prior hearing but was not allowed to
5 testify. *Id.*, pp. 48-52. Thus, Petitioner had no opportunity to present evidence in response
6 to the study introduced by the Councilmember.

7 At the December 4, hearing, the Board members voted to adopt the tentative
8 WDRs but amended the staff proposal to require a double composite liner for the entire
9 landfill, including the side slopes, and to add a reopener to consider the effects of a public
10 health survey currently being conducted by the County of Los Angeles. Petitioner is
11 appealing both of these amendments.

12 **III. THE DOUBLE LINER REQUIRED BY THE REGIONAL BOARD IS**
13 **UNNECESSARY AND INAPPROPRIATE**

14 The idea of requiring a double liner first surfaced as a serious issue after the
15 close of public testimony. As a result, there was no testimony as to what was meant by a
16 double liner or what the effects might be of requiring a double liner. Accordingly, the record
17 is devoid of any meaningful analysis of the potential benefits, if any, of a double liner, the
18 additional costs involved to the Petitioner, and the engineering issues raised by having to
19 construct a double liner on the side slopes.

20 Petitioner had proposed a single-composite liner that fully complied with state
21 and federal liner requirements for municipal solid waste landfills. During the public hearings
22 on the tentative WDRs, some members of the public called for a double liner. In response to
23 those concerns, staff proposed a modified single-composite liner design that called for
24 doubling the thickness of the clay liner and increasing the thickness of the synthetic liner
25 from 60 to 80 mils. At the December 4 hearing, following the close of public testimony, the
26 Board proposed a full double liner system. Since a double liner had not been discussed by
27 the Board at any of the hearings, staff had to ask the Board members what they meant by a
28 "double liner". December 4, 2003, Hearing Transcript, p. 67-71.

1 Initially, the Board member making the motion was unsure what was meant by
2 a “double liner”. At one point, he asked staff if that meant that the synthetic liner would be
3 increased from 60 mils to 120 mils. December 4, 2003 Hearing Transcript, p. 67. After a
4 staff member explained that he believed what the public was suggesting was a double
5 composite liner – two separate clay layers and 2 synthetic liners – he clarified his motion to
6 include a double composite liner. December 4, 2003, Hearing Transcript, p. 68-70. There
7 was no discussion of whether the double composite liner would be required on the side
8 slopes too.

9 The requirement for a double liner system is set forth in requirement D.3. of
10 the WDRs and calls for the doubling of the clay and synthetic liner portions of the liner on
11 the bottom and side slopes of the landfill. In other words, on the bottom, instead of one liner
12 system with two feet of clay and a 60 mil synthetic liner, the system will now include,
13 among other things, two clay layers, each two feet in thickness, and two 60 mil synthetic
14 liners. The double liner on the side slopes will consist of two 60 mil HDPE liners and two
15 geosynthetic clay liners. While the installation of a double liner on the bottom of the landfill
16 will result in substantial additional costs and lost capacity, the requirement for a double liner
17 on the side slopes will require a significant redesign and will make it much more difficult to
18 design a stable landfill. In addition, in order to achieve the necessary stability on the slopes,
19 significant capacity will be lost.

20 Because the Board decided to require a double liner at the last moment, none
21 of these impacts were analyzed. The record is devoid of any analysis of the additional
22 protection a double liner might provide. There is no discussion of whether it is possible, or
23 desirable, from an engineering perspective to attempt to place two synthetic liners on top of
24 one another on a side slope. There is no discussion in the record of the added costs of such a
25 change to the liner design in terms of additional engineering, materials costs, the cost of the
26 lost capacity, and the cost of the delay to the project of requiring a complete redesign. In
27 short, there is nothing of a factual or scientific nature that would support the Board’s
28 decision. What the record shows is that the decision was based on nothing more than the

1 sense that if one liner is good, two must be better – a classic example of a decision that is
2 arbitrary and capricious.

3 On the same day, the Regional Board approved – on the Consent Calendar – an
4 expansion of the Simi Valley Landfill with a single composite liner, even though the staff
5 has identified the Simi Landfill as posing a greater threat to groundwater than Sunshine
6 Canyon.⁴ The only difference between the approvals of the two landfills was the lack of
7 public testimony in opposition to the Simi Valley Landfill.

8 The Board required a full double liner despite testimony from Regional Board
9 staff and the experts who testified in this matter that the single-composite liner proposed by
10 BFI complied with state and federal requirements, that the proposed liner would fully protect
11 groundwater in the Expansion Project area, and that there were no unique site characteristics
12 requiring a greater level of protection than that provided by the prescriptive liner. The Board
13 required a double composite liner based on “concerns” and speculation by the community
14 that the single composite liner “might” leak. These concerns were totally unsupported by
15 any factual evidence pertaining to the site or any credible scientific or technical evidence that
16 the prescriptive liner design is inadequate. The Board also refused to allow representatives
17 of BFI to testify in opposition to the proposal or to rebut testimony presented at the
18 November 6 hearing concerning the alleged susceptibility of HDPE to common household
19 products.

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21 ///

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23 ⁴ The Regional Board website contains information on the permits for all active landfills in the Region. Each
24 permit is described in terms of “Complexity” of the discharger and “Threat to Water Quality” of the discharge
25 being permitted. Complexity is rated in three categories (A, B and C) where A is the most complex, and
26 threat to water quality is rated as Category “1” (major threat), “2” (moderate threat), or “3” (minor threat).
27 Both of the Sunshine Canyon facilities (the City Side and County Extension landfills) have been classified by
28 the RWQCB as B-2 (a moderately “complex” discharger with “moderate” threat to water quality). In
contrast, the Simi Valley Landfill and Puente Hills (East Canyon) Landfill have been classified by the
RWQCB as A-1 (high complexity discharge with “major” threat to water quality). Although Sunshine
Canyon has a lower complexity/threat classification than Simi Valley or Puente Hills, only Sunshine Canyon
has been required to install a double composite liner. The Simi Valley Landfill and Puente Hills Landfills
each recently obtained updated WDR’s requiring that their respective expansions contain only a single
composite liner.

1 A. **The Record Shows that the Prescriptive Liner Will Protect Water**
2 **Quality.**

3 The record is clear that Staff reviewed the JTD and drafted tentative WDRs
4 incorporating the prescriptive liner design. The record is clear that staff proposed changes to
5 the liner system only in response to public testimony requesting a double liner and in
6 response to the Board's concerns about the public's opposition to the project. However,
7 even after proposing an upgraded liner, staff never changed its initial position that the
8 prescriptive liner proposed by Petitioner would protect water quality. The record is also
9 clear that there were no analyses done of either the modification proposed by staff, or a
10 double liner, in terms of the quantifying additional protection that such a liner might provide
11 at this specific site.

12 The JTD contains a detailed description of the single composite liner and an
13 explanation of how it would protect groundwater in Sunshine Canyon. In both the tentative
14 and final WDR, staff found that the engineered containment features as described in the JTD
15 "will be constructed to the prescriptive standards of 27 CCR and/or 40 CFR." Tentative
16 WDRs and Exhibit A, WDRs, ¶ 12. At the July 24, 2003 hearing, Executive Officer
17 Dickerson testified that "[w]ith the protective measures applied at the landfill which includes
18 liner systems, groundwater-extraction trench, and cutoff walls, no pollutants should be
19 released from the landfill to the groundwater basin." July 24, 2003 Hearing Transcript, p.
20 38, emphasis added.

21 In July, in response to a written comment on the tentative WDRs suggesting a
22 double liner system, staff supported its approval of the liner system proposed by BFI stating
23 that "[d]ouble composite liner systems are required for Class I and Class II landfills because
24 the wastes discharged to such landfills are a much bigger threat to the environment than the
25 non-hazardous solid waste disposed at Sunshine Canyon Landfill and other Class III
26 landfills. Nevertheless, a multiple layer composite liner system is required at Sunshine
27 Canyon Landfill for the leachate collection sumps, which are the most critical portion of a
28 liner system." Sunshine Canyon Landfill Proposed City Expansion – Responses to

Comments Received (File No. 58-076), July 18, 2003 Response 4.B.

In response to Board member concerns about issues raised by the public, prior to the September 11th hearing, Regional Board staff issued a Change Sheet with proposed modifications to the liner system increasing the clay liner from two feet to four feet and increasing the thickness of the synthetic liner from 60 mils to 80 mils. See Change Sheet ¶ 13. However, despite proposing potential modifications to the liner, Regional Board staff clearly stated in the Change Sheet, and at the September 11th hearing, that the single composite liner proposed by BFI would protect water quality at the site. See September 11, 2003 Staff Report, page 7, ¶ 14, Exhibit B. Executive Officer Dennis Dickerson testified at the September 11 hearing that “considering the low permeability of the bedrock at that site, the liner system initially proposed in the WDRs was protective of the groundwater resources.” He went on to state that “the upgrading to the proposed liner system, as proposed and recommended now, will make the landfill containment system even more reliable and is, therefore, a more conservative approach.” September 11, 2003 Hearing Transcript, p. 23. However, at no point during the September 11 hearing or during any subsequent hearings did staff ever change its position that the original liner system proposed by Petitioner would be protective of groundwater.

In addition, no attempt was ever made to quantify the additional protection that might be afforded by the upgraded liner system or a double liner. Neither the September 11, 2003 Staff Report nor staff testimony at that hearing, or any other hearing, provided any technical or scientific evidence demonstrating that the proposed modifications to the liner system were either necessary or appropriate based on conditions at the site, nor did they quantify the additional protection the modified liner might provide. The statement that the liner would be “more reliable” was the only justification given for the proposed modification and was totally unsupported by any analysis whatsoever. Staff Report for September 11, 2003 hearing, p. 6. Given the statement in the Staff Report and staff’s testimony that the original liner would protect water quality, it is clear that the subject liner modifications were proposed solely to address public concerns that the liner might leak.

1 The modifications proposed in Paragraph 13 of the Change Sheet would have
2 required BFI to double the size of its clay liner from two feet to four feet, and change the
3 synthetic liner from 60 mils to 80 mils throughout the bottom of the Expansion Project.
4 When questioned about the possibility of requiring a liner such as this for the Expansion
5 Project, Regional Board staff testified as follows: “We have not required that for any other
6 landfill in our region beneath the entire landfill. The State Board, and for the most part,
7 Regional Board staff feel that a single-composite liner is appropriate for a Class III landfill
8 [such as the Sunshine Canyon Landfill].” Testimony of Rod Nelson, July 24, 2003 Hearing
9 Transcript, p. 167. Although Staff subsequently recommended amending the tentative
10 WDRs to include the upgraded liner, they never testified that they had changed their
11 evaluation of the single-composite liner as being protective of groundwater.

12 Experts who testified also agreed that a single-composite liner would fully
13 protect water quality in this case. Dr. Edward Kavazanjian, a principal of GeoSyntec
14 Consultants and co-author of the RCRA Subtitle D (258) *Seismic Design Guidance for*
15 *Municipal Solid Waste Landfill Facilities for the Environmental Protection Agency*, testified
16 on BFI’s behalf at the July 24, 2003 hearing:

17 “And out of all the scientific evidence that’s been collected over
18 the last ten 10 years, including numerous studies across the
19 country, all indicate that a single-composite liner is sufficiently
20 protective – provides more than adequate protection to
21 groundwater resources from municipal solid waste landfills.”

22 (July 24, 2003 Hearing Transcript, p. 193.).

23 Dr. Bert Palmer, another GeoSyntec engineer and principal, testified at the
24 September 11 hearing as to the adequacy of the single-composite liner design:

25 “the Subtitle D liner is designed and constructed to protect groundwater. It
26 provides multiple redundant layers of protection for the following reason:
27 There is no accumulation of leachate due to the slope of the liner, and the
28 leachate is removed from the landfill. And the geomembrane offers the first

1 layer of protection against groundwater flow, and the clay layer offers the
2 second level of containment for the landfill. Extensive monitoring and testing
3 is performed during construction. All this work and the design is reviewed and
4 approved by the Water Board.

5 To conclude, Subtitle D single-composite liners have been thoroughly
6 studied and, through implementation, have proven to be protective of
7 groundwater.”

8 (September 11, 2003 Hearing Transcript, pp. 96-97)

9 Mr. David Rothbart, the Supervising Civil Engineer of the Solid Waste Water
10 Quality Group at the Los Angeles County Sanitation District, also testified in support of the
11 single-composite liner. He testified as follows:

12 “First, I would like to summarize the Sanitation District’s
13 experience with similar landfill liner systems. Since 1994, the
14 Sanitation District has successfully designed and constructed
15 twelve landfill liner systems at three landfills that fully comply
16 and, in fact, exceed Title 27 requirements. These liners have
17 been constructed at canyon sites similar to the Sunshine Canyon
18 Landfill site. . . .

19 Based on the Staff Report, an additional two feet of clay is recommended for
20 the Sunshine Canyon Landfill liner and is included in the tentative Waste
21 Discharge Requirements. The staff report indicates that the additional
22 thickness will provide greater reliability but provides no quantitative analysis
23 of any additional environmental protection...

24 In the Sanitation District’s extensive experience with liners, the prescriptive
25 standard for clay liners are consistent with Title 27 performance standards and
26 have provided protection of groundwater at all Sanitation District facilities and
27 all the facilities we have reviewed.”

28 (September 11, 2003 Hearing Transcript, pp. 121-122)

1 Not only did all the experts agree that a single-composite liner would fully
2 protect water quality, absolutely no evidence was presented to suggest that the proposed liner
3 modifications or a double liner would be necessary or appropriate in this case because of any
4 unique site characteristics. The Staff Report states, "Staff believes that considering the low
5 permeability of the bedrock at the site, the liner system initially proposed in the tentative
6 WDRs is protective of groundwater resources." September 11, 2003 Staff Report, p. 7,
7 emphasis added.

8 Mr. Melvin Blevins, the Upper Los Angeles River Area (ULARA)
9 Watermaster from 1979 to September 2003, testified at the September 11 hearing that "it is
10 my strong belief that the Sunshine Canyon does not provide any threat to the groundwater
11 within the San Fernando Valley. From both a geologic and hydrogeologic perspective this is
12 one of the better locations within ULARA for a landfill." September 11, 2003 Hearing
13 Transcript, p. 116. In his written statement, Mr. Blevins stated that in his opinion

14 "there are no groundwater releases from the Sunshine Canyon
15 Landfill (Landfill) that will impact the local groundwater
16 resources. There are no groundwater drinking wells for many
17 miles from the Landfill. The geology and hydrogeology of the
18 Landfill is situated on hard bedrock, with only a few alluvial
19 deposits, resulting in extremely slow groundwater velocities
20 through this area. . . . it would take centuries for contamination
21 (if any) to reach potable wells. . . . this Landfill is well run, is
22 located on one of the best sites for a landfill in the Los Angeles
23 area, and provides a negligible threat to the Basin."

24 The site's excellent natural containment features are also demonstrated by the
25 record of groundwater monitoring data from the wells down gradient of the existing City
26 Landfill. Despite being unlined, VOCs have been detected in only one of the ten monitoring
27 wells down gradient of the City Landfill, and the level detected was less than the MCL for
28 drinking water. Enhancements to the gas collection system have resulted in the well being

1 non-detect for VOCs for the last four quarters. Petitioner's August 5, 2003, letter to Mr.
2 Rodney Nelson, Responses to Questions, p. 3.

3 Accordingly, staff, Petitioner's experts on landfill design, and the
4 representative for the Watermaster all agreed that the single-composite liner would protect
5 water quality and that there were no unique site features requiring any additional level of
6 protection.

7 **B. The Regional Board's Basis for Requiring a Double Liner.**

8 Other than a few members of the public requesting a double liner, there was
9 very little discussion of double liners during any of the public hearings. As a result, it is
10 difficult to determine the reason why the Board members decided to require a double liner.

11 At the December 4 hearing during the deliberations on the tentative WDRs,
12 Board members made several statements about the proposed liner design. Board member
13 Nahai stated that: "I still feel uncomfortable about the liner and what is being proposed to
14 us. I think we've heard compelling evidence that the liner thickness needs to be improved
15 upon." December 4, 2003 Hearing Transcript, p. 61. Vice-Chair Diamond stated "I'd like to
16 see us put in a double liner ... I'm not convinced that this won't do more to protect water
17 quality ... the double liner is going to give us that much more protection for that much
18 longer time." December 4, 2003 Hearing Transcript, pp. 66-67.

19 The Finding supporting the double liner is set forth in paragraph 47 and reads
20 as follows:

21 "The Regional Water Quality Control Board received significant testimony
22 that a single composite liner may not be sufficient to protect water quality,
23 prevent public nuisance, and prevent conditions of pollution. Based on the
24 record and considering the totality of the circumstances, the Regional Board
25 finds that prevention of public nuisance and protection of water quality
26 requires more than the minimum single composite liner specified in 27 CCR.
27 Given the proximity to important water resources for the City of Los Angeles,
28 the proximity to surrounding communities, and other factors as presented by

1 the record, these requirements specify a double composite liner to ensure
2 maximum reasonable protection of the Region's water resources." Exhibit A,
3 WDRs, ¶ 47.

4 So, what was the "compelling evidence" justifying the need for a double liner?
5 There was none. As set forth below, the record contains "concerns" and speculation but no
6 factual evidence of a public nuisance or a danger to water quality.

7 **C. The Landfill Opponents' Requests for a Double Liner were**
8 **Unsupported by Technical or Scientific Evidence Related to**
9 **Sunshine Canyon.**

10 The landfill opponents raised the same concerns they have been raising for
11 years about the potential for the landfill to contaminate water quality. However, none of
12 their concerns are supported by facts, and they were refuted by the expert testimony and
13 monitoring data presented by the staff and Petitioner.

14 **1. Technical Reports Submitted By Public Do Not Support The Need**
15 **For A Double Liner.**

16 There was no scientific or technical evidence presented either in the written
17 comments or during the public hearings demonstrating that the liner system proposed for
18 Sunshine Canyon would not be sufficient to protect water quality, prevent public nuisance or
19 prevent conditions of pollution at that location. What was presented was a number of
20 questionable studies gleaned from the internet and other sources that made unsubstantiated
21 claims concerning landfills in general. No technical evidence was presented concerning
22 specific conditions at Sunshine Canyon that would provide any basis for determining that the
23 proposed liner system was inadequate at that location.

24 Many commenters testified that all liners leak, and written comments presented
25 by John and Sue Hendricks of Concerned Granada Hills Citizens attached a number of
26 studies, all by G. Fred Lee⁵, and several articles from "Rachel's Environment & Health

27 _____
28 ⁵ The technical reports by Dr. Lee and his colleagues constitute the only "evidence" the community provided
in support of the double composite liner request.

1 News” purporting to demonstrate this fact. July 4, 2003 letter from John and Sue Hendricks,
2 with attached reports and articles, Comment Letter 21. These claims have been made for
3 years and were made at the time the United States Environmental Protection Agency
4 (“USEPA”) adopted the Subtitle D regulations which mandate the single-composite liner
5 Petitioner proposed for this landfill. 56 Fed.Reg. 50978, 51009, October 9, 1991. In
6 adopting the federal regulations, USEPA stated that a single-composite liner is “protective in
7 all locations, including poor locations”, such as areas with significantly more rainfall and
8 less favorable geology/hydrogeology than the subject landfill. 56 Fed.Reg. at 51009. The
9 regulations were adopted after extensive study by the regulatory agencies, public notice and
10 comment, and public hearings. The USEPA received over 350 written comments on its
11 notice of proposed rulemaking.

12 The same claims were made when the State Water Resources Control Board
13 adopted Order 93-062, which implemented the Subtitle D regulations in California. The
14 SWRCB concluded at the time it adopted that order that “the use of composite liners
15 represents the most effective approach for reliably containing leachate and landfill gas.”

16 Furthermore, the USEPA has responded to the general position of Dr. Lee
17 concerning the long-term viability of composite liners. Robert Dellinger, Director of the
18 EPA Municipal and Industrial Waste Division, wrote to Dr. Lee in 1998:

19 “While you contend that landfills will always be a threat if they release any
20 constituent, we believe that controlled releases of certain constituents from
21 landfills may be acceptable provided the releases do not exceed regulatory
22 levels that have been established to protect human health and the environment.
23 Our risk assessment supports our position. It concludes that disposal of
24 municipal waste in properly located, operated, closed, and monitored landfills
25 poses very low risks to human health and the environment.”

26 This letter was attached as Appendix D7 to the Sunshine Canyon Final SEIR, and is the
27 subject of Response to Comment Number 602 in that same document. The Final SEIR was
28 provided to staff and is part of the administrative record in this matter.

1 Citations to general studies, without application to the site specific
2 characteristics of Sunshine Canyon, are not a sufficient basis for justifying a double liner.
3 There must be some specific showing that a single-composite liner is not sufficient at this
4 location to justify departing from the state and federal regulations, which were adopted
5 following extensive study and notice and comment rulemaking. General "concerns" that a
6 liner may leak are not compelling evidence, or any evidence at all.

7 **2. The County Liner Has Not Been Breached.**

8 During the public hearings and in numerous written comments, landfill
9 opponents repeatedly alleged that the County Landfill liner, which is the same composite
10 liner proposed for the Expansion Project, had been "breached." However, these statements
11 have been shown to be untrue and provide no basis for requiring a double liner.

12 The landfill opponents appear to base their claim that the liner has been
13 breached on the presence of VOCs in the subdrain beneath the County liner system and/or
14 the recent detections of 1,4-dioxane in monitoring wells down gradient of the unlined City
15 Landfill at the mouth of the canyon. With regard to the subdrain VOCs, through extensive
16 monitoring and laboratory sampling of the gas and landfill leachate, Petitioner has shown
17 that the VOCs are likely the result of landfill gas migrating through soil stockpiles along the
18 liner margins into the subdrains. Moreover, the lack of certain indicator parameters in the
19 subdrain liquids rules out leachate or condensate as the source of the VOCs in the subdrain.
20 Since no VOCs have been detected in the points of compliance for the County Landfill
21 (Wells MW-11 and CM-14), the evidence shows the liner is intact. See "Delineation
22 Assessment Report, Sunshine Canyon County Extension Landfill" by A-Mehr Inc., July 10,
23 2003.

24 With regard to the recent detections of 1,4-dioxane and whether they indicate
25 that the County Landfill liner is leaking, staff observed:

26 "1,4-dioxane has been detected in leachate samples from both the City Side
27 Landfill (220 ug/l) and the County Extension Landfill (40 ug/l) at Sunshine
28 Canyon. ... Because the monitoring wells where the contaminant was detected

are located downgradient of the unlined inactive City Side Landfill, it is most probable that 1,4-dioxane in groundwater at the site is from the wastes that were disposed at the City Side Landfill. It is highly unlikely that 1,4-dioxane could have come from the County Extension Landfill because none has been detected in any groundwater monitoring wells at the County Extension Landfill which is equipped with a composite liner and leachate collection and removal system.” October 23, 2003 Staff Report, p. 2, emphasis added.

Thus, the monitoring data refute the unsubstantiated claims of the landfill opponents. Neither the presence of VOCs in the County Landfill subdrain nor the recent detections of 1,4-dioxane at the mouth of the Canyon provide any evidence that the County liner is not functioning as it was intended to function. The best evidence that the liner is working properly is the fact that there have been no detections of leachate or condensate indicator parameters in the County Points of Compliance.

3. Studies Submitted By Councilmember Smith Provide No Justification For a Double Liner.

Councilmember Smith and his staff were also busy on the internet trying to find studies to show that the landfill might leak. The studies they submitted purported to show that 1,4-dioxane can pass through a clay liner and that HDPE can be damaged by household products. Both studies were shown to be irrelevant as applied to Sunshine Canyon.

On September 11, 2003, the Councilmember’s aide testified that 1,4-dioxane could pass through a clay liner within five years. September 11, 2003 Hearing Transcript, p. 79. Since 1,4-dioxane had been detected in leachate, the testimony was that the liner needed to be upgraded. The Staff Report for the November 6 hearing refuted this claim by explaining that:

“Because the concentrations of 1,4-dioxane in landfill leachate is very low . . . a liner system including a chemically resistant synthetic liner above the clay liner, that is capable of preventing

1 the release of leachate will prevent the release of 1,4-dioxane
2 from the landfill.” October 23, 2003 Staff Report pp. 2-3.

3 The Staff Report went on to state that:

4 The HDPE sheets are resistant to organic and inorganic
5 chemicals, including 1,4-dioxane. The landfill’s bottom liner is
6 designed with a slope of at least 3% and overlain by a leachate
7 collection layer that is comprised of coarse gravel and geotextile
8 fabric. Leachate is collected at leachate sumps and pumped out.
9 Leachate sumps are located at the lowest points at the landfill and
10 equipped with a double liner system . . . It is therefore very
11 unlikely that any significant amount of a leachate will penetrate
12 the HDPE membrane and reach the clay layer beneath it. The
13 clay layer and the low permeability bedrock at the site will
14 provide additional security against any minor damage or
15 imperfections of the HDPE sheets.” October 23, 2003 Staff
16 Report, pp. 2-3.

17 The study offered on behalf of Councilmember Smith was shown to be
18 inapplicable to Sunshine Canyon because it concerned pure 1,4-dioxane, rather than highly
19 diluted leachate which is almost all water, and because it discussed only a clay liner and
20 ignored the protection provided by the synthetic liner.

21 Councilmember Smith testified on November 6 that the HDPE used in the
22 synthetic liner could be damaged by common household products. At the December 4
23 hearing, staff testified that they did not believe the liner was susceptible to household
24 products because the concentrations of the substances would be very low and the liner would
25 be protected by a two foot thick layer of soil between the waste and the synthetic liner and
26 geonet and gravel above that. December 4, 2003 Hearing Transcript, pp. 32 – 34.

27 Petitioner submitted a letter dated November 18, 2003, from Dr. Edward
28 Kavazanjian further refuting those allegations. Dr. Kavazanjian’s letter showed that the

1 literature provided by Councilmember Smith was out-of-date and not applicable to the
2 HDPE resins used to make modern geomembrane liners.

3 The expert testimony presented by staff and in the letter from Dr. Edward
4 Kavazanjian clearly refute the conclusions of the study relied on by Councilmember Smith
5 by showing that the HDPE resins analyzed in the study were not the same resins currently
6 used for synthetic liners and that the conditions under which the study was conducted did not
7 represent the conditions that would be present in a landfill.

8 **4. The Proximity Of Water Conveyance Facilities Does Not Justify A**
9 **Double Liner.**

10 Another concern repeatedly raised by the public and the elected officials was
11 that publically owned water storage and conveyance facilities one to three miles from the
12 landfill could be harmed if the landfill leaked. This issue is also referenced in Finding 47 of
13 the WDRs. Staff contacted the Los Angeles Department of Water and Power and the
14 Metropolitan Water District, the owners of the facilities, to determine whether they shared
15 the public's concerns. Both wrote letters stating that they did not oppose the issuance of the
16 WDRs and believed that their operations had not been and would not be harmed by the
17 landfill.

18 **D. The Administrative Record Contains No Evidence of the Additional**
19 **Protection, if any, that a Double Liner Would Provide.**

20 While there was substantial scientific and technical evidence in the record to
21 support the issuance of WDRs for the landfill with a single-composite liner, no objective
22 evidence was presented at any of the hearings as to why a double liner or any modification of
23 the prescriptive liner might be necessary or whether it would provide greater protection to
24 groundwater. The only "evidence" in support of the double liner was pure speculation that
25 the landfill "might" leak and that a double liner might be more reliable.

26 In response to the concerns of the public, the Regional Board members could
27 have asked staff to investigate whether a double liner would provide better protection and at
28 what cost. However, they never asked staff or BFI to determine what, if any, additional

1 protection would be provided, what the additional cost might be, or whether a full double
2 liner could even be constructed at Sunshine Canyon. They simply assumed, without any
3 factual basis, that a double liner would be better than a single composite liner and did no
4 analysis as to whether the additional cost could be justified by the added protection, if any.
5 They refused to allow Petitioner to present testimony at the December 4 hearing when they
6 decided to require a double liner.

7 As a result, neither the liner modifications proposed by staff, nor a double
8 liner, were ever evaluated to quantify the added benefit or reliability, if any, to be achieved
9 from such changes. Staff did not perform any type of an analysis to demonstrate the added
10 level of protection from the modifications they proposed to the liner system. The only
11 justification for deviating from the prescriptive liner is found in the Staff Report for the
12 September 11 Board hearing, which simply states that the modification would address the
13 concerns from the public and make the liner system "more reliable" and "more
14 conservative". Staff Report dated October 23, 2003, pp. 6-7. However, the Staff Report
15 never explains how the added clay and a thicker synthetic liner, which would be much more
16 difficult to construct, would make the liner more reliable. Staff was never asked to evaluate
17 a double liner.

18 In contrast, Mr. David Edwards testified on behalf of Petitioner at the
19 September 11, 2003, hearing that "[a]s thoroughly discussed by Mr. Palmer and as proven at
20 Sunshine Canyon and other sites across the state, the single composite liner as proposed in
21 the joint technical document is protective of groundwater within Sunshine Canyon. The
22 need for a double liner or a modified system as proposed by staff in the change sheets is not
23 warranted. There is no technical justification to impose a liner system that could increase
24 installation cost by as much as \$13 million for the development of the City/County landfill."
25 September 11, 2003 Hearing Transcript, p. 111. The \$13 million figure was for the
26 modifications to the liner proposed by staff. Petitioner was precluded from providing
27 testimony on the added cost of the double liner at the December 4 hearing, when it first
28 became apparent that the Board was seriously considering requiring a double liner.

David Rothbart, Supervising Civil Engineer of the Solid Waste Water Quality Group at the Los Angeles County Sanitation District, testified that a double-composite liner could actually be worse than a single-composite liner as originally proposed:

“Doubling the thickness of the clay liner may not offer the equivalent level of protection of the prescriptive standard. In fact, this change may produce constructibility problems that could increase the risk of defects in the liner. The prescriptive standards have demonstrated their effectiveness in protecting water quality at landfill sites throughout the state.” September 11, 2003 Hearing Transcript, p. 122.

The record is totally devoid of any attempt to demonstrate the level of additional protection that a double liner might provide. Moreover, no evidence was presented to show that the Expansion Project would create a public nuisance or that the landfill would impact “important water resources for the City of Los Angeles” or the surrounding communities. In fact, all of the technical evidence presented supported the conclusion that the existing landfills, both lined and unlined⁶, had not had any impact on the DWP or MWD facilities nearby and that no contaminated groundwater had left the site, much less caused an impact on the community. As a result, the record and the “totality of the circumstances” do not support the Board’s action. The requirement for a double liner was arbitrary, unnecessary, overly burdensome, and extremely costly with no quantifiable improvement in protecting groundwater. This requirement should be eliminated from the WDRs.

IV. THE REOPENER FOR REVIEW OF A GENERAL HEALTH SURVEY IS IMPROPER

The Regional Board delayed the issuance of WDRs for the Expansion Project by holding four public hearings, most of which related to the question of whether a general public health study should be conducted. Eventually, the County agreed to conduct a survey

⁶ The unlined City Landfill was in operation from 1958-1991. Monitoring data has shown no off-site migration of any contaminant.

1 in the community and the Regional Board decided to issue the WDRs but inserted a reopener
2 clause so that the WDRs could be revised if “subsequent health studies of persons residing in
3 the vicinity of the Landfill determine that there is an elevated risk of illnesses associated with
4 the Landfill.” Exhibit A, WDRs, Requirement M.3. As detailed below, because there is no
5 water-based pathway that would enable the Expansion Project to impact public health, such a
6 survey is unrelated to water quality and any action based on the results of such survey would
7 be beyond the scope of the Regional Board’s jurisdiction. In addition, claims of adverse
8 health impacts have been evaluated repeatedly by the City and County as part of the
9 permitting and EIR process and each time have been found to be without merit.
10 Accordingly, the Reopener should be deleted from the order.

11
12 **A. The Community’s Claims Of Adverse Health Impacts Are Not**
13 **Related To The City Expansion.**

14 First and foremost, it is undisputed that any potential health impacts that the
15 community believes it may have suffered could only have come from the inactive City
16 Landfill or the currently operating County Landfill. The City Expansion Landfill, which is
17 the subject of these WDRs, is a separate landfill that does not yet exist. Therefore, the
18 claims made by the community are, to a large extent, irrelevant in determining whether to
19 issue WDRs for the Expansion Project.

20 Even if the authority of the Regional Board to regulate nuisance is so broad
21 that it extends to matters not related to water quality and control, which it is not, there is no
22 nuisance to regulate or prevent with respect to the Expansion Project. The health survey will
23 study potential health impacts from the closed City Landfill or the active County Landfill,
24 but not the proposed project. The two existing landfills are separate from the pending
25 application and are not related to the WDRs for the proposed expansion.

26 Counsel for the Regional Board, Mr. Lauffer, recognized the disconnect
27 between the existing landfills and the proposed project and advised the Regional Board not
28 to delay the WDRs for the proposed landfill because of an unrelated nuisance inquiry into

1 the existing landfills. Specifically, Mr. Lauffer stated,

2 “[I]n respect to the issue of the need to prevent nuisance and
3 considering the need to prevent nuisance, the Board’s actions
4 would not be affirmed in terms of delaying further the Waste
5 Discharge Requirement and waiting for the results of that health
6 study because they really won’t have any bearing on the new
7 landfill, if you will.”

8 September 11, 2003 Hearing Transcript, pp. 204-205.

9 Nuisance is defined in the Water Code. From a temporal perspective, nuisance
10 is a present condition that must meet all of the criteria included in the definition:

11 “Nuisance” means anything which meets all of the following
12 requirements: (1) Is injurious to health, or is indecent or
13 offensive to the senses, or an obstruction to the free use of
14 property, so as to interfere with the comfortable enjoyment of life
15 or property. (2) Affects at the same time an entire community or
16 neighborhood, or any considerable number of persons, although
17 the extent of the annoyance or damage inflicted upon individuals
18 may be unequal. (3) Occurs during, or as a result of, the
19 treatment or disposal of wastes.

20 Water Code sec.13050 (m)

21 The Expansion Project is not causing any impacts on the community because it
22 does not exist. The County’s health survey is examining whether the community has been
23 impacted by the existing landfills. A project that does not exist cannot satisfy any of the
24 criteria for nuisance listed above and, thus, cannot constitute a nuisance. Finally, even if the
25 Regional Board is attempting to prevent a potential nuisance for the proposed landfill, the
26 results of the study and any additional conditions the Board may decide to impose will be
27 misdirected because the health survey concerns a wholly separate landfill. Thus, the Board’s
28 authority to regulate nuisances does not apply to the Expansion Project.

1 **B. There is No Water-Based Pathway of Exposure.**

2 At the public hearings, no evidence was presented by the landfill opponents or
3 any of the expert medical witnesses called by the Regional Board that the neighboring
4 community had been or was being exposed to contaminated water from the landfill. As the
5 Petitioner testified, all water sources at both the closed City Landfill and the existing County
6 Landfill are controlled, and water leaving the site does not come into contact with people in
7 the community. If there is no exposure to water discharges, there can be no water-related
8 health impact on the community.

9 The community does not come into contact with leachate, groundwater or
10 storm water from the landfills due to the design of the landfills and the protective features
11 already in place. The County liner and the proposed Expansion Project liner are designed to
12 capture all the leachate that will be generated. Leachate is collected in double-lined sumps
13 and piped to a treatment system and then discharged to the sanitary sewer. The community
14 is not exposed to leachate from the County Landfill or the inactive City Landfill, which does
15 not have a leachate collection system.

16 Groundwater at Sunshine Canyon travels through the alluvial soils and exits
17 through the mouth of the canyon. Exhibit A, WDRs, ¶¶ 27-28. However, the extraction
18 trench across the mouth of the canyon cuts off groundwater flow. The intercepted water is
19 used for dust control on the site. Regardless of how groundwater is controlled or used,
20 people do not come into contact with groundwater. Thus, groundwater does not provide a
21 water-based pathway that could potentially impact the health of the community.

22 Lastly, storm water run-off at the landfill is controlled through the design of
23 the landfill and support structures. Storm water falling in the non-landfill areas of Sunshine
24 Canyon is diverted away from the waste mass through a system of channels and passes
25 through a sedimentation basin prior to discharge. It is discharged to a storm drain system
26 and does not come into contact with the community. Storm water falling on the covered
27 areas is diverted off of the landfill, controlled by channels and a sedimentation basin, and is
28 discharged to the storm drain. In neither case do members of the community come into

1 contact with storm water leaving the canyon.

2 Regional Board staff and all the experts who testified in this matter agreed that
3 there is no water-based pathway that would enable the Expansion Project to impact public
4 health. At the September 11, 2003 hearing, Dr. James W. Stratton, a medical epidemiologist
5 with the California Environmental Protection Agency, Office of Environmental Health
6 Hazard Assessment ("OEHHA"), testified as follows: "So at least from what I've been able
7 to discern, there is no potential pathway either in the past or currently via water that would
8 suggest a way for members of this community to be exposed." September 11, 2003 Hearing
9 Transcript, p. 45, emphasis added. He went on to state: "So at the present time, I have not,
10 despite more than two months of looking, been able to find any evidence of a direct off-site
11 exposure to the community among any of these various [waterborne or airborne] pathways."
12 September 11, 2003 Hearing Transcript, p. 48. Dr. Stratton testified as part of the staff
13 presentation.

14 **C. The Regional Board Lacks Jurisdiction To Require A Health Study**
15 **If There Is No Water-Based Pathway.**

16 Imposing additional requirements on a discharger on the basis of findings of a
17 general health survey, when there is no water-based pathway for exposure to the public, is
18 beyond the authority of the Regional Board for two reasons: First, it is questionable whether
19 a regional water quality control board can regulate a nuisance that is not related to water
20 quality; and second, even if the regional board can regulate nuisance generally, there is no
21 nuisance to be regulated since the landfill expansion does not yet exist.

22 The health survey that consumed so much of the Board's attention is not
23 looking for adverse health impacts related to a water-based pathway of human exposure.
24 Rather, its purpose is to determine if an airborne nuisance exists because, as Dr. Stratton
25 testified, that is the only potential pathway of exposure. September 11, 2003 Hearing
26 Transcript, pp. 44-45. The regulation of airborne nuisances is an area that is under the
27 authority of the air quality management districts. Health & Safety Code §41700. Just as the
28 air quality management districts should not reach into water quality issues, the water quality

1 control boards should not reach into air quality issues.⁷

2 Pursuant to the Porter-Cologne Water Quality Control Act ("Porter-Cologne
3 Act"), California Water Code Section 13000, et seq., the regional boards are charged, along
4 with the State Board, with "primary responsibility for the coordination and control of water
5 quality." Water Code Section 13001. In carrying out this responsibility, the regional boards
6 must prepare water quality controls plans which contain water quality objectives that protect
7 the beneficial uses of water in the region. Water Code Section 13241. Moreover, regional
8 boards must issue WDRs for proposed discharges that will "implement any relevant water
9 quality control plans that have been adopted, and shall take into consideration the beneficial
10 uses to be protected . . ." Water Code Section 13263.

11 At the September 11 hearing, Counsel for the Regional Board advised that the
12 Board might have authority to defer issuance of the WDRs while a study was being
13 conducted based on their authority to regulate nuisances under Water Code sec. 13050(m).
14 September 11, 2003 Hearing Transcript, pp. 202 – 205. However, while the Porter Cologne
15 Act provides the state and regional water quality control boards the ability to consider
16 nuisance, it does so under the umbrella of general legislative intent of the Act as set forth in
17 Water Code § 13001:

18 Legislative intent. It is the intent of the Legislature that the state
19 board and each regional board shall be the principal state
20 agencies with primary responsibility for the coordination and
21 control of water quality. The state board and regional boards in
22 exercising any power granted in this division shall conform to
23 and implement the policies of this chapter and shall, at all times,
24 coordinate their respective activities so as to achieve a unified
25 and effective water quality control program in this state.

27 ⁷ The South Coast Air Quality Management District permits the gas collection system and flares and imposes
28 conditions on their operation. In addition, the air district has adopted rules limiting landfill gas and fugitive
dust emissions.

Water Code § 13001.

Further, it is apparent that prior to these WDR proceedings the Regional Board considered its purpose to be solely related to issues of water quality. In its mission statement to the public, the Regional Board states, “The mission of the Regional Board is ‘to preserve and enhance water quality in the Los Angeles Region for the benefit of present and future generations.’” <http://www.swrcb.ca.gov/~rwqcb4/html/mission.html>. To clarify the mission of the Regional Board, the description continues, “To carry out this mission, the Regional Board conducts the following broad range of activities to protect ground and surface waters under its jurisdiction.” The list includes matters clearly related to water quality and does not mention the regulation of general nuisance or air quality related public health effects. See Id.

Lastly, if the Regional Board is attempting to address cumulative impacts of distinct landfills, Mr. Lauffer advised the Regional Board that WDR determinations are not the place for such a cumulative analysis. See September 11, 2003 Hearing Transcript, p. 61-62. Mr. Lauffer explained that the California Environmental Quality Act (“CEQA”) is the vehicle for examining cumulative impacts, which would include inquires such as looking at existing environmental impacts in concert with a proposed project. See Id. Mr. Lauffer clearly advised the board that WDRs do not have a cumulative impact aspect and, as such, are limited to inquiries on the project which is the subject of the WDRs. See Id.

Given that no water-based pathway exists for potential exposure, the Regional Board, which derives its authority from the Porter-Cologne Act to protect water quality, is acting beyond the scope of its jurisdiction by even considering reopening the WDRs to address the findings of the County’s health survey. In addition to lacking the authority to regulate, there is no evidence showing the community has been impacted.

D. Studies to Date have not Shown that the Landfill is Impacting Public Health.

The health experts who testified as part of the staff’s presentations at the public hearings agreed that there is no evidence of an increased risk of cancer or an increase in

1 mortality rates, low birth-weight babies, birth defects, or infant mortality in the communities
2 surrounding Sunshine Canyon Landfill. In a September 4, 2003, letter from Dr. Wendy
3 Cozen, Assistant Professor of Preventative Medicine at the University of Southern California
4 Keck School of Medicine, she reported on an analysis of cancer occurrence in the area of the
5 landfill. She stated: "The conclusion is that there is no evidence of excess cancer risk
6 among residents living near the Sunshine Canyon Landfill over and above that of other Los
7 Angeles County residents. There have been several studies examining cancer risk near
8 dumpsites at other Los Angeles County locations (i.e. BKK in West Covina), and we have
9 not identified any instances of increases in cancer risk among neighborhood residents."
10 Exhibit B to Staff Report for September 11, 2003 hearing, pp. 12-0, 1-18. Dr. Cozen also
11 testified at length at the November 6 hearing. See November 6, 2003 Hearing Transcript, pp.
12 191-251.

13 At the September 11, 2003 hearing, Dr. Simon, a pediatrician and medical
14 epidemiologist with the Los Angeles County Department of Health Services, testified that
15 there is no evidence that Sunshine Canyon Landfill has impacted the health of the
16 surrounding communities. "I agree with Dr. Stratton that, in reviewing the data so far, I
17 haven't seen anything that indicates to me that there is excess illness in these neighboring
18 community [sic] that reflects something coming from the landfill." September 11, 2003
19 Hearing Transcript, pp. 62-63. He also testified at the November 6, 2003, hearing that his
20 review of the data had shown no evidence of increased risks of low birth weight babies, birth
21 defects, or increased mortality rates in the neighborhoods surrounding the landfill. See
22 transcript, pp. 179-189.

23 Dr. Stratton also testified that the Agency for Toxic Substances and Disease
24 Registry, which is part of the Centers for Disease Control, has developed a methodology that
25 says that: "...if there is not an established pathway of exposure to a hazardous substance,
26 then, in general, they do not proceed with a health assessment of the site because to do so
27 would basically not be a significantly productive thing to do." September 11, 2003 Hearing
28 Transcript, p. 49.

1 The claims of landfill opponents concerning alleged public health impacts are
2 not new and have been addressed numerous times during the various permitting phases of the
3 landfill expansions. In each case, after reviewing the facts, the land use authority determined
4 that there was no evidence to support the claims of a higher incidence of illness in the
5 community. In the late 1980s, the Zoning Administrator for the City of Los Angeles
6 (“Zoning Administrator”) confronted this issue and reached the conclusion that allegations of
7 adverse health impacts associated with the Sunshine Canyon Landfill were unsubstantiated.
8 In the context of a zoning variance dispute heard by the Zoning Administrator in 1988, the
9 agency concluded that “allegations of health impacts, allergies, skin conditions, respiratory
10 conditions, etc., are unproven. Materials in this file contain no scientific or expert
11 documentation relating to this.” In a subsequent appeal of this determination filed by the
12 North Valley Coalition with the Los Angeles Board of Zoning Appeals, “[t]he Board
13 concurred with the Zoning Administrator that allegations concerning a wide range of issues
14 could not be substantiated, were not related to the subject variance, or had been resolved.
15 Among the concerns expressed that could not be established or were not deemed appropriate
16 under variance proceedings were those relating to health impacts . . .” (Appeal From
17 Imposition of Additional Conditions for Previously Approved Landfill, BZA Case No. 3877
18 and 3878, April 6, 1989). See Petitioner’s July 23, 2003, letter to Dr. Wen Yang.

19 In 1993 and 1999, as part of the CEQA process for the permitting of the City
20 Landfill, Dr. Wendy Cozen, then Assistant Professor of Clinical Preventive Medicine with
21 the USC Cancer Surveillance Program, performed an analysis of cancer rates in and around
22 the Sunshine Canyon Landfill at the request of the City of Los Angeles. With respect to
23 cancer, cases of illness have been carefully tracked for more than three decades by the
24 California Department of Health Services Cancer Registry and the Los Angeles County
25 Cancer Registry. USC also runs an established Cancer Surveillance Program which
26 compiles and analyzes cancer data. Having analyzed cancer data concerning both children
27 and adults in the communities surrounding the Sunshine Canyon Landfill, Dr. Cozen found
28 that cancer rates were no higher than would be expected in the general population. *Id.* Dr.

1 Cozen reiterated this conclusion in a subsequent letter to Mary Edwards of the North Valley
2 Coalition in which she stated that she “did not find any excess risk of cancer in the area
3 surrounding the landfill.” Id.

4 At the Regional Board hearing on July 24, 2003, Dr. Stratton referenced Dr.
5 Cozen’s study, and noted that when Dr. Cozen performed a subsequent analysis of cancer
6 cases occurring during the period from 1992 through 1997, she reached the same conclusion
7 as in her initial study. July 24, 2003 Hearing Transcript, pp. 49-50.

8 In sum, the evidence shows that rates of illness are no higher among residents
9 living in communities surrounding the Sunshine Canyon Landfill than would be expected in
10 the general population and that the landfill opponents’ claims have been studied on several
11 different occasions and found to be without factual basis in each instance.

12 **E. No Airborne Pathway Exists for the Landfill to Impact Public**
13 **Health**

14 Although the Regional Board is solely charged under Porter-Cologne with
15 protecting water quality, and does not have authority to regulate air quality, the record in this
16 case shows that all experts who have investigated potential airborne pathways have
17 concluded that there is no evidence of an airborne impact from the Sunshine Canyon Landfill
18 on the surrounding communities. As noted by Executive Officer Dickerson during his
19 presentation to the Regional Board on July 24, 2003, BFI is required by the City of Los
20 Angeles to employ various mitigation measures to control fugitive dust generation at the site.
21 September 24, 2003 Hearing Transcript, p. 39. In order to assess the effectiveness of these
22 mitigation measures and to address public concerns regarding this issue, BFI conducted two
23 air monitoring programs over the past two years at a cost of \$250,000. Both of these
24 programs were conducted under the direction of the City of Los Angeles and both programs
25 demonstrated that Sunshine Canyon Landfill has no adverse air quality impact on
26 surrounding communities.

27 The first program was a year-long, continuous air monitoring program
28 designed to measure dust and diesel particulate at the landfill and at Van Gogh Elementary

1 School, the closest school to the landfill. This monitoring study was required by the City to
2 respond to the landfill opponents' claims that the landfill was impacting air quality at the
3 school. Dr. Shari Libicki, a principal with Environ Corporation, testified at the September
4 11, 2003 hearing that, "The program showed that the major source of diesel particulates was
5 from the highways and the roadways, not a surprising conclusion in that area. It also showed
6 high dust events at the landfill berm⁸ did not result in high dust concentration at the Van
7 Gogh Elementary School." September 11, 2003 Hearing Transcript, pp. 109-110.

8 The second air monitoring program conducted by BFI involved four monthly
9 samplings for landfill gas and methane at the landfill berm and at the Van Gogh Elementary
10 School. As Dr. Libicki testified, "No landfill gas was detected in either the berm or the
11 elementary school. Thus, the study demonstrates that the baseline air quality in the
12 neighborhood near the landfill is not being significantly impacted by the landfill."
13 September 11, 2003 Hearing Transcript, p. 110.

14 **F. A Meaningful General Public Health Study Cannot be Designed**

15 While the experts agree that rates of cancer and other health conditions are no
16 higher than would be expected in the general population, even if they were, the experts
17 further agree that a general health study or survey is unlikely to yield meaningful results. At
18 the July 24, 2003 hearing, Dr. Cyrus Rangan, M.D., Director of Toxics Epidemiology
19 Program for the Los Angeles Department of Health, appeared as a witness for the Regional
20 Board staff. Dr. Rangan testified that it would be nearly impossible to establish a causal
21 relationship between landfill exposure and effect. "And most likely I would come to the
22 same conclusion we have now which is that, as long as all the laws are being followed, then
23 the public should not be at any significant risk." July 24, 2003 Hearing Transcript, p. 57.

24 Dr. Paul Simon, a medical epidemiologist and pediatrician with the Los
25 Angeles County Department of Health Services, Office of Health Assessment and
26 Epidemiology, also testified that it would be difficult if not impossible to establish a causal
27

28 ⁸ The area referred to as the "berm" is the closest area to the community.

1 link between landfill exposure and health impacts. Dr. Simon testified, "I just want to
2 caution though if we do find an elevated rate, for example, say 25 percent of children have
3 asthma, it's still very difficult to determine causation. It doesn't prove that it's the landfill,
4 for example, that caused it." September 11, 2003 Hearing Transcript, p. 67.

5 Early in 1993, in connection with a City Landfill expansion project, the City of
6 Los Angeles sought the input of Dr. Paul Papanek, M.D., M.P.H., and Chief of the Toxics
7 Epidemiology Program for the Los Angeles County Department of Health Services
8 concerning the possibility of conducting a health impacts analysis in the communities
9 surrounding the Sunshine Canyon Landfill. In a letter to the Department of City Planning
10 dated February 22, 1993, Dr. Papanek concluded, "I do not think that a general
11 epidemiologic study will be useful here." Dr. Papanek's letter is an attachment to
12 Petitioner's July 23, 2003, letter to Dr. Wen Yang.

13 In so finding, Dr. Papanek noted the following difficulties associated with such
14 a study: (1) it would be nearly impossible to demonstrate a cause and effect relationship
15 between landfill exposure and adverse health effects; (2) there are no accurate measures of
16 pollutant exposures for individual citizens; (3) from a methodological standpoint, obtaining
17 valid data concerning reversible symptoms is difficult due to well-established problems with
18 recall and selection bias; and (4) the incremental risks associated with landfill exposure are
19 likely to be very small, "well below the threshold for detection in an epidemiologic study."
20 Id.

21 In the context of meetings with the City of Los Angeles conducted several
22 years later in connection with the preparation of the SEIR for the City/County Landfill, Dr.
23 Papanek reiterated his opinion that an epidemiological study would not prove useful. The
24 Draft SEIR, published in 1997, states as follows: "Dr. Papanek indicated that the potential
25 for significant human health risks to be statistically attributable to a Class III landfill is
26 generally low Additionally, Dr. Papanek suggested that the City should not conduct an
27 epidemiological study for the proposed project because this type of study would be
28 'unwarranted' based on scientific grounds." Id.

1 In preparing the SEIR, the City also consulted with Dr. Thomas Mack,
2 Professor of Preventive Medicine at the USC School of Medicine. The Draft SEIR states
3 that "Dr. Mack indicated it would be unlikely that an epidemiological study for the proposed
4 project would produce a definitive finding linking health problems of area residents to the
5 landfill site." Id. Dr. Mack reached this conclusion based on two factors: (1) the population
6 base within the area was small when the landfill was originally sited and the population has
7 significantly changed since that time, with many residents leaving and others moving into the
8 area; and (2) because cancer population centers take approximately 10 to 20 years to
9 establish, changes in the population base would make it difficult to define a study group. Id.

10 The conclusions reached by Dr. Papanek and Dr. Mack were supported by Dr.
11 Rangan at the hearing on July 24, 2003. Dr. Rangan testified that he agreed with Dr.
12 Papanek's 1993 analysis concerning the many problems inherently associated with
13 performing a general health study in this case. July 24, 2003 Hearing Transcript, p. 57.

14 Even if an increased incidence of health impacts in the area of Sunshine
15 Canyon Landfill is identified, the experts agree that a general health study will not yield
16 meaningful results. While there are many reasons for this, the greatest obstacle to designing
17 a useful study is the inability to demonstrate a cause and effect relationship between landfill
18 exposure and adverse health effects. Accordingly, the addition of a reopener for the
19 Expansion Project WDR was inappropriate and should be deleted.

20 **V. PETITIONER REQUESTS AN EXPEDITED APPEAL, A PUBLIC HEARING,**
21 **AND THE RIGHT TO SUPPLEMENT THE RECORD WITH REGARD TO**
22 **THE DOUBLE LINER.**

23 This appeal warrants quick action by the State Board. The remaining buildable
24 capacity at the County Landfill will be exhausted within approximately seven months. Once
25 capacity is exhausted, BFI will be unable to satisfy existing contracts for waste disposal.
26 BFI is facing significant economic harm if it cannot construct the Expansion Project before
27 capacity at the County Landfill is exhausted. In addition, residents and businesses in the
28 City of Los Angeles will also be aggrieved if WDRs are not issued on a timely basis because

1 they will have fewer waste disposal options.

2 Petitioner will have to make significant expenditures to redesign the landfill to
3 incorporate a double composite liner, and construction costs will increase by over \$7 million
4 for the Expansion Project and over \$15 million for the entire City project. In addition, the
5 Petitioner will incur significant lost revenues due to a reduction in capacity associated with
6 the redesign and installation of the double composite liner.

7 The requirement to construct a double composite liner will require a complete
8 redesign of the landfill including reengineering of the landfill and a completely new seismic
9 analysis after the landfill is redesigned. Petitioner estimates that design and seismic analysis
10 will take six months. Once the design is finalized it will need to be reviewed and approved
11 by Regional Board staff. Regional Board staff requires that the seismic evaluation be
12 reviewed by the Department of Water Resources ("DWR"), which can take up to six months
13 or more based on past experience. Once the new design is approved, it will take four months
14 to construct the first cell. It is unlikely that these tasks can be completed by the time
15 capacity in the County Landfill is exhausted.

16 The proposed design for a single-composite liner has already been reviewed by
17 Regional Board staff and has been under review by DWR staff since January 2003. All of
18 this time and effort will be lost if the landfill must be redesigned for a double liner.
19 However, if the State Board grants Petitioner's appeal deleting the requirement for a double
20 liner, Petitioner can avoid this delay and expense and begin construction of the original
21 proposed design.

22 The State Board holds the power to eliminate the double liner requirement. In
23 fact, in past cases the State Board has acted to eliminate permit requirements which are
24 found to be unnecessary and overly burdensome. For example, in the recent case of Sixteen
25 to One Mine, Inc., Petition for Review of, Order No. WQO-2003-0006 (April 30, 2003), the
26 State Board eliminated certain monitoring requirements which were found to be unnecessary
27 and overly burdensome given the minimal threat posed by Petitioner's discharge. "The
28 requirement to monitor priority pollutants in the effluent twice annually throughout the life

1 of the Permit is excessive because it is reasonable to assume, based on the facility location,
2 the source of the process water, and the industrial processes involved, that many of the
3 priority pollutants will not be present in the wastewater.” Id. at *23-24. Similarly, in The
4 Matter of the Petition of Weyrich Development Company for Review of Administrative
5 Civil Liability Order, Order No. WQO-2003-0004, also decided on April 30, 2003, the State
6 Board struck down an administrative civil liability penalty imposed by the Central Valley
7 Regional Board based upon a finding that the record was insufficient to support such penalty.

8 Petitioner requests the right to supplement the Administrative Record by
9 providing evidence as to the design and construction challenges presented by the requirement
10 for a double composite liner, the additional cost of installing a double liner, the amount of air
11 space that will be lost due to the redesign of the landfill, and the delays caused by the
12 Regional Board’s failure to issue WDRs in a timely manner as required by law. Petitioner
13 was not allowed to testify as to any of these matters at the December 4 hearing. December 4,
14 2003, Hearing Transcript, pp. 48-56. Petitioner also requests that its letter dated November
15 18, 2003, which was rejected by the Regional Board at the December hearing, be included in
16 the administrative record. December 4, 2003, Hearing Transcript, p. 56. Lastly, Petitioner
17 requests a hearing on this appeal so that all of the information described above can be
18 presented to the State Board.

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1 **V. CONCLUSION**

2 The Regional Board acted inappropriately and improperly and without support
3 in the record when it required a double composite liner and added a reopener for possible
4 future revision of the WDRs based on the results of the on-going health study. For the
5 foregoing reasons, BFI requests that the State Board revise Order No. R4-2003-0155 by
6 deleting Finding 47 (double liner), modifying Requirement No. D.3. to reinstate the language
7 in the tentative WDRs requiring a liner that complies with 27 CCR; and delete the reopener
8 in Requirement No. M.2. regarding the health study.

9
10 DATED: January 5, 2004

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